IN THE CLAIMS:

Claims 1, 4-5, and 8-18 are pending in this application. Please cancel claims 2, 3, 6 and 7 without prejudice or disclaimer, amend claims 1, 4-5, 8-9, 11-13, 16, and 18 as follows:

1. (Currently Amended) A computer system, comprising:

a plurality of virtual machines formed on a control program of a computer; and

an I/O device connected to a PCI bus of said computer and shared among said plurality of virtual machines;

a single port disposed in said I/O device and connected to said PCI bus;

PCI connection allocating means for setting a state of logical connection between selected at most one of said plurality of virtual machines and said port at a time; and

I/O device switching means for updating said state of logical connection set by said PCI connection allocating means according to a control signal received from said selected virtual machine,

wherein said selected virtual machine changes its state of logical connection to said I/O device according to the setting by said PCI connection allocating means,

wherein said selected virtual machine is deactivated to said control program in response to occurrence of an error in said virtual machine, and said control program notifies a connection destination standby-system server of said state of connection.

2-3. (Canceled)

4. (Currently Amended) The computer system according to claim [[2]]1,

wherein said plurality of virtual machine includes comprises first and second virtual machines,

wherein said second virtual machine, when an error is detected in said first virtual machine, sends a predetermined control signal to said I/O device switching means and connects the port of said I/O device to said second virtual machine, and

wherein said control program activates said second virtual machine and lets said first virtual machine stand by.

5.   (Currently Amended) A computer system, comprising:

a plurality of physical partitioned computers formed by partitioning a computer physically;

an I/O device connected to a PCI bus of said computer and shared among said plurality of physical partitioned computers;

a single port disposed in said I/O device and connected to said PCI bus;

a PCI connection allocating means for setting a state of logical connection between selected at most one of said plurality of physical partitioned computers and said port at a time; and

I/O device switching means for updating said state of logical connection set by said PCI connection allocating means according to a control signal received from said selected physical partitioned computer,

wherein said selected physical partitioned computer changes its state of logical connection to said I/O device according to the setting by said PCI connection allocating means,

wherein said selected physical partitioned computer is deactivated to said control program in response to occurrence of an error in said selected physical partitioned computer, and said control program notifies a connection destination standby-system server of said state of connection.

6-7.   (Canceled)

8.   (Currently Amended) The computer system according to claim [[6]] 5,

wherein first and second physical partitioned computers are included in said plurality of physical partitioned computers,

wherein said error detecting means, when detecting an error in said first physical partitioned computer, sends a predetermined control signal to said I/O device switching means and connects said port of said I/O device to said second physical partitioned computer, and

wherein said computer activates said second virtual machine and lets said first virtual machine stand by.

9. (Currently Amended) An I/O device connected to a PCI bus of a computer, comprising:

a single port connected to said PCI bus;~~and~~

signal generating means for generating an interruption signal used to change the state of logical connection of said port according to a control signal received from said computer; and

an operating system performing hot-add/remove an I/O device in response to an interruption signal running on a computer,

wherein said computer, when receiving said interruption signal, changes its state of logical connection to said port.

10. (Previously Presented) The I/O device according to claim 9,

wherein said computer includes first and second virtual machines formed therein,

wherein said signal generating means sends the interruption signal to said second virtual machine to change said state of logical connection of said port to said first virtual machine according to a control signal received from said first virtual machine.

11. (Currently Amended) The I/O device according to claim 9, <u>further</u> comprising an allocating means for setting said state of logical connection of said port,

wherein said signal generating means generates an interruption signal and updates said allocating means for setting said state of logical connection of said port.

12. (Currently Amended) An I/O device connected to a plurality of physical partitioned computers through a PCI bus, comprising:

a single port connected to said PCI bus;~~and~~

signal generating means for sending an interruption signal to a second physical partitioned computer to change a state of logical connection of said port to a first physical partitioned computer according to a control signal received from said first physical partitioned computer included in said plurality of physical partitioned computers; and

an operating system performing hot-add/remove an I/O device in response to an interruption signal running on a computer.

13. (Currently Amended) A method for sharing an I/O device connected to a PCI bus of a computer among a plurality of virtual machines formed on a control program of said computer, comprising the steps of ~~including~~:

   selecting at most one virtual machine among said plurality of virtual machines at a time;

   ~~a step of~~ enabling said I/O device to set a state of logical connection between said selected ~~one of said plurality of~~ virtual machine[[s]] and a single port of said I/O device connected to said PCI bus through said single port; and

   ~~a step of~~ changing said state of logical connection between said port and said selected virtual machine according to a control signal received from said selected virtual machine.

14. (Original) The method according to claim 13,

   wherein said step of changing said state of logical connection includes:

   a step of changing said state of logical connection between said port and said selected virtual machine and generating an interruption to notify said selected virtual machine of a change of said state of logical connection of said I/O device; and

   a step of enabling said selected virtual machine that receives said interruption to change said state of logical connection to said I/O device according to said setting of said state of logical connection.

15. (Original) The method according to claim 13,

   wherein said step of changing said state of logical connection, when detecting error occurrence in any of said plurality of virtual machines, updates an allocation table for setting said state of logical connection between said port and each virtual machine, lets said error-detected virtual machine stand by and activate another virtual machine.

16. (Currently Amended) A method for sharing an I/O device connected to a PCI bus of a computer among a plurality of virtual machines formed by partitioning said computer physically,

> wherein said method ~~includes~~ comprises the steps of:

> selecting at most one physical partitioned computer among said plurality of physical partitioned computers at a time;

> ~~a step of~~ enabling said I/O device connected to said PCI bus through its single port to set a state of logical connection between said selected ~~one of said plurality of~~ physical partitioned computer[[s]] and said port; and

> ~~a step of~~ changing said state of logical connection to said port according to a control signal received from said selected physical partitioned computer.

17. (Previously Presented) The method according to claim 16,

> wherein said step of changing said state of logical connection, when detecting error occurrence in any of said plurality of physical partitioned computers, updates an allocation table for setting the state of logical connection between said port and each physical partitioned computer, lets said error-detected physical partitioned computer stand by, and activate another physical partitioned computer.

18. (Currently Amended) A method for sharing an I/O device connected to a PCI bus of a computer among a plurality of virtual machines,

> wherein said method ~~includes~~ comprises the steps of:

> ~~a step of~~ enabling said I/O device connected to said PCI bus through its single port to generate an interruption signal used to change the state of logical connection of said port according to a control signal received from any selected one of said plurality of virtual machines; ~~and~~

> ~~a step of~~ changing said state of logical connection between said port and said selected virtual machine according to said received interruption signal; and

> performing hot-add/remove an I/O device in response to an interruption signal running on a computer.